

EH-10610(03-544)

WHAT IS CLAIMED IS:

1. A casting system comprising:

a first core and a wax die spaced from said first core;

a refractory metal core having a first end seated within a slot in said first core and a second end contacting said wax die for positioning said first core relative to said wax die; and

said refractory metal core having at least one of a means for providing spring loading when closed in said wax die and a means for mechanically locking the wax die to the first core.

2. The casting system according to claim 1, wherein said refractory metal core has said spring loading means and said spring loading means comprises at least one integrally formed spring tab.

3. The casting system according to claim 2, wherein said spring loading means comprises a plurality of spaced apart spring tabs.

4. The casting system according to claim 2, wherein each said tab has a tapered end.

5. The casting system according to claim 2, wherein each said tab has a non-tapered end.

6. The casting system according to claim 1, wherein the refractory metal core is formed from a material selected from the group consisting of molybdenum, tantalum, niobium, tungsten, alloys thereof, and intermetallic compounds thereof.

7. The casting system according to claim 1, wherein said refractory metal core has said mechanical locking means and said wax die is provided with a slot for receiving said mechanical locking means of said refractory metal core.

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8. The casting system according to claim 7, wherein said mechanical locking means comprises said second end of said refractory metal core being angled to fit within said slot.

9. The casting system according to claim 8, wherein said slot in said wax die has a wall perpendicular to a surface of said wax die and said second end of said refractory metal core abuts said wall.

10. The casting system according to claim 7, wherein said mechanical locking means comprises at least one hole in said second end of said refractory metal core.

11. A refractory metal core for maintaining a core in a desired position with respect to a wax die and avoiding core shift during casting comprising:

a core element formed from a refractory metal material,

said core element having at least one integrally formed spring tab to provide spring loading when closed in said wax die.

12. A refractory metal core according to claim 11, wherein said core has a plurality of spaced apart spring tabs.

13. A refractory metal core according to claim 11, wherein said core element is formed from a material selected from the group consisting of molybdenum, tantalum, niobium, tungsten, alloys thereof, and intermetallic compounds thereof.

14. A refractory metal core for maintaining a core in a desired position with respect to a wax die and avoiding core shift during cast comprising:

a core element formed from a refractory metal material,

said core element having a first end, a central portion, and a second end positioned at an angle to said central portion for engaging a slot in said wax die.

15. A refractory metal core according to claim 14, wherein the angle between the second end and the central portion is such that said second abuts a wall of said slot.

16. A refractory metal core according to claim 14, wherein said second end includes means for mechanically locking the refractory metal core to a shell.

17. A refractory metal core according to claim 16, wherein said mechanical locking means comprises at least one tab having at least one hole.

18. A refractory metal core according to claim 14, wherein said core element is formed from a material selected from the group consisting of molybdenum, tantalum, niobium, tungsten, alloys thereof, and intermetallic compounds thereof.